

"Quick-coupling and quick-release safety connector for piping".

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ABSTRACT

5 A connector for piping is described of the type comprising two tubular
fitting parts (1, 2) and quick-coupling and quick release means (15) having a
plurality of locking segments (16) circumferentially distributed in a plane
perpendicular to the axis of said fitting parts (1, 2) and housed in radial slots
(17) of an axial projecting portion (6) of a first fitting part (2) that, during
the coupling stage, is superimposable to a corresponding projecting axial
10 portion (5) of the second fitting part (1). A revolving ring (18) can be
controlled to rotate in order to work on said locking segments (16) so as to
push them into at least one radial seat (33) of said projecting portion (5) of
the second part of joint (1) or to house them in its own radial seat (34),
respectively for the coupling and the uncoupling of said fitting parts (1, 2).
15 Two independent by operable hydraulic cylinders (19) are arranged
substantially at 180° from each other in the rotation plane of the revolving
ring (18) and they react, each one, between a first lever (22) fastened to the
first fitting part (2) and a second lever (23) fastened to the revolving ring
(18). Said first lever (22) is made up of a radially more external part (24) and
20 of a radially more internal part (25) that are connected with each other by an
articulation (26) which is modifiable in order to be able to assume a first
operating condition for the complete mutual locking of the two parts (24, 25)
of the first lever (22) and a second operating condition of consent to the
rotation of the radially more external part (24) of the first lever (22) in
25 direction of approach to the second lever (23). (Figure 2)